

CLAIMS

What is claimed is:

1. An air inflation system having at least one axle with at least one wheel having a pneumatic tire at each end of the axle and a wheel end assembly connected to each end of the axle and including a hubcap forming a compartment for retaining lubricant for the wheel bearings, said vehicle having an air supply for supplying air to the inside of the axle, a pneumatic rotary union, having a first stationary part and a second rotatable part, in communication between the air inside the axle and the tire, and coaxially aligned with the axle comprising,

said hubcap having an opening coaxially aligned with the rotary union,

a plug releasably supported in the opening including a support opening axially aligned with the rotary union, said plug including one or more air vents positioned outside of the support opening, and said support opening supporting a through tee in communication with the air supply, a vent shield covering the outside of the air vents, and one end of the rotatable part of the rotary union,

said hubcap opening being of a size for adding and visually inspecting lubrication level and for removing the stationary part of the rotary union through the hubcap opening without removing the hubcap.

2. The apparatus of claim 1 wherein the plug consists of a rigid material for providing a firm support for the through tee, and said plug includes a head at one end for abutting the outside of the hubcap and an extension extending through and beyond the inside of the hubcap opening and terminating in a second end spaced from the hubcap for diverting lubricate away from the air vents, and

a circular seal surrounds the plug intermediate the first and second ends sealing against the inside of the hubcap and releasably holding the plug in position in the hubcap opening.

3. The apparatus of claim 2 wherein the plug includes surfaces exposed to the interior of the hubcap and the surfaces are positioned to direct lubrication in the hubcap away from the air vents.

4. The apparatus of claim 3 wherein the surfaces include an interior surface outside of the air vents, said interior surfaces tapering outwardly toward the second end of the plug for centrifugally directing lubrication away from the air vents when the hubcap is rotating.

5. The apparatus of claim 4 wherein the interior surface includes a first and a second outwardly directed tapered surface.

6. The apparatus of claim 3 wherein the plug includes an exterior surface adjacent the second end of the plug which includes a recess around the exterior surface for directing lubrication away from the air vents while the hubcap is static.

7. The apparatus of claim 2 wherein the outside of the head of the plug includes a knurled surface for ease of removing the plug from the hubcap opening.